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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,252	05/15/2001	Stepan Sokolov	SUN1P829	1717

22434 7590 04/21/2004

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BERKELEY, CA 94704-0778

EXAMINER

HO, THE T

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 04/21/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

pp24

**Office Action Summary**

Application No.

09/858,252

Applicant(s)

SOKOLOV ET AL.

Examiner

The Thanh Ho

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 21-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is in response to the amendment filed 2/2/2004.
2. Claims 1-14 and 21-26 have been examined and are pending in the application.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blandy U.S Patent No. 6,481,006.

**As to claim 1**, Blandy teaches a method of invoking a method (invoking a Java method, line 36 column 2) in a Java computing environment (JVM, line 43 column 3) comprising providing a reference (object reference, line 21 column 8) to Java parameter on a Java execution stack (an object reference to that object is placed into the Javaframe as the "hidden" first parameter, lines 22-23 column 8; Java parameter placed on the Java stack, lines 11-12 column 5), the Java parameter being parameter associated with a native method (copies parameters from the native stack to the Java stack for use by the target method, lines 6-8 column 5); generating one or more native parameters (copying parameters from the native frame to the Javaframe, lines 15-16

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column 8) based on said reference; and invoking said native method (invoking a Java method, line 36 column 2) with said one or more native parameters (method invocation for each parameter, line 28 column 5).

Blandy does not explicitly teaches invoking a native method written in a programming language other than Java. However, Blandy teaches that although the depicted embodiment is directed towards processing bytecodes in Java, the processes of the present invention may be applied to other programming languages and environments that process instructions (lines 58-61, column 10), and the present invention may be used with other interpretable methods other than java methods (line 67 column 10 to line 1 column 11). Therefore one of ordinary skill in the art would conclude that the method provided by Blandy might be used to invoke a programming language or native language other than Java.

**As to claim 2**, Blandy as modified further teaches the reference is provided to a set of macro instructions (native code or instructions that generate a call, lines 43-44 column 9).

**As to claim 3**, Blandy as modified further teaches the macro instructions and native method are written in the same programming language (written in C programming language, lines 10-11 column 5).

**As to claim 4**, Blandy as modified further teaches the macro instructions and native method are written in C programming language (written in C programming language, lines 10-11 column 5).

**As to claim 5**, Blandy as modified further teaches converting the Java parameter to native parameter suitable for use by the native method (must be converted, lines 24-25 column 5).

**As to claim 6**, Blandy as modified further teaches converting is performed by macro instructions (lines 37-67 column 9).

**As to claim 7**, it is a method claim of claim 4. Therefore, it is rejected for the same reasons as claim 4 above.

**As to claim 8**, Blandy as modified further teaches placing native parameter on a native execution stack (parameter were placed on the native stack, lines 8-9 column 5); executing native method using native parameter (lines 37-67 column 9).

**As to claim 9**, Blandy as modified further teaches Java parameter is a Java reference object (object reference, line 21 column 8).

**As to claim 10**, it is a method claim of claims 1 and 5-7. Therefore, it is rejected for the same reasons as claims 1 and 5-7 above.

**As to claim 11**, it is a method claim of claim 4. Therefore, it is rejected for the same reasons as claim 4 above.

**As to claim 12**, it is a method claim of claim 2. Therefore, it is rejected for the same reasons as claim 2 above. Blandy as modified further teaches the macros (native code or instructions that generate a call, lines 43-44 column 9) operate to insulate the native method from the internals of a virtual machine (Java virtual machine, lines 24-25 column 6) that is invoking the native method (lines 37-67 column 9).

**As to claims 13-14**, they are method claims of claims 8-9, respectively.

Therefore, they are rejected for the same reasons as claims 8-9 above.

**As to claim 21**, it is a computer readable medium claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above.

**As to claim 22**, it is a computer readable medium claim of claims 5-6.

Therefore, it is rejected for the same reasons as claims 5-6 above.

**As to claim 23**, it is a computer readable medium claim of claim 5. Therefore, it is rejected for the same reasons as claim 5 above.

**As to claim 24**, it is a system claim of claim 1. Therefore, it is rejected for the same reasons as claim 1 above. Blandy as modified further teaches memory (memory 204, Fig. 2) and a CPU (processor 202, Fig. 2).

**As to claims 25-26**, they are system claims of claims 5 and 8, respectively.

Therefore, they are rejected for the same reasons as claims 5 and 8 above.

### ***Response to Arguments***

4. Applicant's arguments filed have been fully considered but are moot in view of the new ground(s) rejection.

Applicant's arguments presented issues which required the Examiner to further view the previous rejection. The Examiner conducted a further search regarding the issues mentioned in Applicant's response. Therefore, all arguments regarding the cited references of the previous rejection are moot in view of the new grounds of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to The Thanh Ho whose telephone number is 703-306-5540. A voice mail service is also available for this number. The examiner can normally be reached on Monday – Friday, 8:30 am – 5:00 pm.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

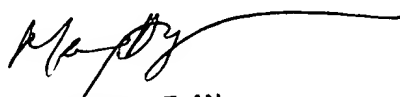
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Commissioner for Patents  
P.O Box 1450  
Alexandria, VA 22313-1450

Or fax to:

- AFTER-FINAL faxes must be signed and sent to (703) 746 – 7238
- OFFICAL faxes must be signed and sent to (703) 746 – 7239
- NON OFFICAL faxes should not be signed, please send to (703) 746 – 7240

TTH  
April 14, 2004

  
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